possess of earlier mammals, we rnust arrive at the general conclusion that two of the existing larger groups of the Eutherian, non-Marsupial, mammals were differentiated at quite the beginning of the Eocene., and were represented by forms from which it is possible to derive at least the existing Carnivora, Insectivora, Artiodactyla, and, Perissodactylu. These were the Creodonta and the Ungulate Coiidylarthra. In addition to these we may enumerate as very early types the Lemuroidea, represented by such forms as *Indrodon* in the "*New* World, and (though later) by *Wecrolemur,* etc., in the Old "World, and the Edentata, if we are to allow as their ancestors the Ganodonta.

The early Eocene strata also contain representatives of at least one order, the Amblypotla, which increased subsequently, but has died out without descendants, unless we are to believe with some that the Elephants are to be derived from these Eocene ** pachyderms/[1]' In later Eocene times the great majority of the existing orders, and even subdivisions of orders, are to be met with ; and there are in addition such totally extinct orders as the Typotheria, Aiicylopoda, and Tillodontia. Coupled with this gradual specialisation in the orders of Eutherian mammals, there is naturally a vast increase in the number of generic and family types. This culminates perhaps in the Miocene, from which time tliere has been a gradual decline in mammalian variety, so that it is justly said that we live now in an epoch which is impoverished of mammals. This gradual decay has persisted until to-day, as is witnessed by the extinction of the I&hytina and the Quagga, and the growing rarity of the White Ilhinoceros and the American Bison.

The early Eutherian stock consisted of small mammals with small heads and slender, long tails. The limbs were pentadactyle, ensheathed in claws or broader hoofs. The forelimbs may have been partly prehensile. The teeth were forty-four, completely differentiated into incisors, canines, molars, and preniolars ; and there appears to have been a complete diphyodontism. The canines were nob greatly enlarged, and no diastexna separated any of the teeth. The molars were bunodont

or of a more cutting pattern, with some five or six tubercles.

These animals were, moreover, very small-brained. This early stock is represented by Creodoiit and Condylarthrous animals, the exact boundaries between which are hardly marked in the